

CORROCON – CPAC TM

Cement polymer Anticorrosive Coating for Steel Reinforcement Rods

NEED FOR CORROSION PROTECTION

Corrosion of Steel in Concrete is the major problem faced by the Construction Industry. Until recently durability and performance of Reinforced concrete structures were taken for granted because of the belief that a high grade of concrete with higher alkalinity and higher electrical resistance offered by the concrete cover will provide good protection to the embedded steel. However, the corrosion of reinforcing steel in concrete exposed to aggressive environment affects the life of concrete. Because corrosion of steel in concrete is electrochemical in nature and even a small amount of chloride and subtle changes in pH can sustain the corrosion process. The major cause for the corrosion of steel in concrete is the presence of chloride and carbonation. Baring external environmental conditions, the presence of small amount of chlorides in the mixing water, sand and coarse aggregate is sufficient enough to promote corrosion of steel rods inside the concrete.

Bridges, Buildings and other Reinforced concrete structures exposed to marine and industrial environments are being severely damaged due to corrosion of reinforcing steel with in a short span of 10-20 years. From these instances it can be realized that the service life of concrete structures is much less as compared to its design life. Therefore it is inferred that barrier protection offered by the concrete is limited and needs further strengthening by taking some additional measures. Application of Protective coating to steel rods is one of the best methods of protecting steel reinforcement rods from corrosion.

CORROCON-CPAC[™] – Cement Polymer Anticorrosive Coating System

The **CORROCON-CPAC[™]** Anticorrosive Coating system is the simple, cost effective and performance oriented process for corrosion protection of steel reinforcement rods in concrete. The coating can be done at the construction site itself after the rods are cut and bent to shape. **CORROCON-CPAC[™]** Anticorrosive coating system is suitable for execution even from the small and congested construction sites to the major civil works.

APPLICATION PROCEDURE

- Step 1: Removal of Loose rust and scales if any from the rod surface by steel wire brush cleaning or any suitable method. In case of large quantities of heavily rusted rods, sand blasting or inhibited acid pickling can also be done. The rods shall be free from oil or grease.
- Step 2: CORROCON CPAC[™] solution shall be mixed with Ordinary Portland Cement (mix ratio : 1ltr of CORROCON solution with 2-2.5 kg of cement) to make a brushable anticorrosive cement slurry. Apply this slurry on the reinforcement rods by an ordinary paintbrush. The coating shall be allowed to dry for 4-8 hours depending on the climatic conditions. Upon complete drying apply plain solution of CORROCON as a finishing coat. The rods can be handled after 30 minutes. For extended rods, which are left for future expansion, apply additional anticorrosive slurry coat for maximum protection.

Product Name: CORROCON – CPAC[™] Nature : Polymene Allese... 15. COL tropper M T of Steel Standard Packing : 30 Ltrs. HDPE Cans. : Polymeric Anticorrosive

CORROCON – **CPACTM** (Cement Polymer Anticorrosive Coating) - Salient Features

Performance Evaluation Standards: BIS 13620 – 1993, Annex A A-2.2, A-3.3, A-5.5, A-7.3 ASTM A775/A775 M - 2001.Annex A-1.3.1.A-1.3.8

- 1. The coating possesses the necessary Corrosion resistance properties as per Indian Standards.
- 2. CORROCON CPAC[™] coated bars possess the necessary Bond strength development with concrete as required by the Indian Standards.
- 3. The coating has the necessary Impact Resistance properties as required by the Indian Standard and ASTM.
- 4. The coating has the ability to withstand the working stresses when the reinforcement rods are subjected to tension.
- 5. The coating has to be applied after cutting and bending operation is over.

STORAGE & HANDLING

The coated rods shall be stacked off the ground on wooden planks or supports. The coating has excellent Impact resistance properties and does not peel off during normal handling at site. In case of any damage the damaged area shall be applied with the same anticorrosive cement slurry used for coating.



View of an Uncoated rusted fabricated Rods



View of a CORROCON-CPAC[™] coated Rods

For further information please contact

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